

CLAIMS:

1 1. A method of providing access to a wireless communications system in
2 which a plurality of nodes in a first set establish wireless links with wireless units
3 located in geographic proximity to said nodes, said method comprising the steps of:
4 connecting a node of said plurality of nodes in said a first set with different
5 nodes of a second set.

1 2. The method of claim 1 comprising the step of:
2 determining a node of said second set to connect with said node of said first
3 set.

1 3. The method of claim 2 wherein said step of determining comprises:
2 using information characterizing nodes of said second set.

1 4. The method of claim 3 wherein said step of using further includes:
2 using information characterizing usage levels of nodes of said second set.

1 5. The method of claim 2 further comprising:
2 using information characterizing said node of said first set.

1 6. The method of claim 2 further comprising:
2 using information characterizing the wireless unit for which a connection is
3 being established.

1 7. The method of claim 1 wherein said step of connecting further
2 comprising:
3 connecting a node of said first set with a first node of said second set; and
4 connecting said node of said first set with a second node of said second set.

1 8. The method of claim 1 wherein said step of connecting further
2 comprising:
3 connecting a node of said first set with a first node of said second set for
4 establishing a connection with a first wireless unit; and
5 connecting said node of said first set with a second node of said second set for
6 establishing a connection with a second wireless unit.

1 9. The method of claim 2 wherein said step of determining comprising
2 the steps of:
3 receiving information characterizing usage levels of said nodes of said second
4 set;
5 using said information by said node of said first set to determine a node of
6 said second set with which to connect.

1 10. The method of claim 9 comprising the steps of:
2 receiving information by said node of said first set from nodes of said second
3 set using a multicast address associated with said nodes of said second set;
4 maintaining a list by said node of said first set of nodes of said second set
5 based on said information; and
6 using said list by said node of said first set to determine said node of said
7 second set with which to connect.

1 11. A radio access system in a wireless communications system
2 comprising:
3 a plurality of nodes in a first set adapted to establish wireless links with
4 wireless units located in geographic proximity to said nodes;
5 a connection network coupled to said plurality of nodes of said first set; and

6 a plurality of nodes of a second set coupled to said connection network
7 adapted to provide connections between a node of said plurality of nodes of said first
8 set and said plurality of nodes of said second set.

1 12. The system of claim 11 comprising processing circuitry adapted to
2 determine a node of said second set to connect with said node of said first set.

1 13. The system of claim 12 wherein said processing circuitry adapted to
2 use information characterizing nodes of said second set to determine said node of said
3 second set.

1 14. The system of claim 12 wherein said processing circuitry adapted to
2 use information characterizing usage levels of nodes of said second set to determine
3 said node of said second set.

1 15. The system of claim 12 wherein said processing circuitry adapted to
2 use information characterizing said node of said first set to determine said node of
3 said second set.

1 16. The system of claim 12 wherein said processing circuitry adapted to
2 use information characterizing the wireless unit for which a connection is being
3 established to determine said node of said second set.

1 17. The system of claim 12 wherein said radio access system adapted to
2 connect a node of said first set with a first node of said second set and to connect said
3 node of said first set with a second node of said second set.

1 18. The system of claim 12 wherein said radio access system further
2 adapted to connect a node of said first set with a first node of said second set for

3 establishing a connection with a first wireless unit and to connect said node of said
4 first set with a second node of said second set for establishing a connection with a
5 second wireless unit.

1 19. The system of claim 12 wherein said processing circuitry being at said
2 node of said first set and being adapted to receive information characterizing usage
3 levels of said nodes of said second set and to use said information by said processing
4 circuitry to determine a node of said second set with which to connect said node of
5 said first set.

1 20. The system of claim 19 wherein said processing circuitry further
2 adapted to receive information from nodes of said second set using a multicast
3 address associated with said nodes of said second set, to maintain a list of nodes of
4 said second set based on said information, and to use said list to determine said node
5 of said second set with which to connect said node of said first set.